
3.0 Community Outreach Program

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3.0 COMMUNITY OUTREACH PROGRAM

3.1 Introduction

This section outlines the purpose, work elements, and results of the community outreach program. It provides a detailed description of what has been completed and what has been learned, and serves as a basis for recommending additional activities related to potential development of GNEP facilities at INL.

3.1.1 Outreach Program Purpose

If the INL site were selected as a GNEP location, the new activities would build upon eastern Idaho's historic role in nuclear energy technology research and development. The purpose of the community outreach program was to hear the views of community leaders and the general public about having the GNEP facilities at INL, the reasons for their views, and their questions and concerns that would need to be addressed in further outreach. For that purpose, the RDA team initiated activities to hear from both community leaders and the public in southern and eastern Idaho through (1) interviews and workshops with community leaders, and (2) focus group sessions with the general public.

3.1.2 Elements of Outreach Program

The community outreach team moved quickly to structure and implement a range of activities during the February through April 2007 time period, which coincided with DOE's public scoping meeting for GNEP in Idaho Falls on March 15. The elements of the outreach program included the following:

- Develop and disseminate basic information about GNEP, including the need for the facilities and their basic operations, elements of the siting studies, the DOE 13-site evaluation process and NEPA evaluation, and other related topics. This information was used in the form of fact sheets and handouts, using DOE-provided programmatic information as well as Idaho-specific handouts, and on a specially created website hosted by RDA that provided online electronic opportunities to learn about GNEP. The Idaho-specific information materials are provided in Appendix A of this report.
- Conduct one-on-one interviews with community leaders identified across southern and eastern Idaho, where interviewees were asked to review project material, comment on GNEP siting, and raise questions.
- Conduct two-part community outreach activities structured to build upon the key themes and ideas provided through the interviews, bringing together (1) the community leaders who were interviewed to review and react to the full set of interview results and themes, and provide their ideas on additional issues and information needs; and (2) investigating the knowledge levels and questions of the general citizenry to determine and document the opinions of the general Idaho public in relation to GNEP. The objectives were accomplished by inviting interviewed community leaders to follow-on workshops, and, concurrently at each location, meeting with randomly sampled population groups from eastern and southern Idaho.

The team obtained reactions of representative samples of citizens to GNEP materials and concepts, their questions and issues, and their opinions, through a structured set of focus group sessions. The two-part community outreach activities were held in Idaho Falls, Twin Falls, and Boise on April 3, 4 and 5, 2007, respectively. Key themes and results are presented in Section 3.3 of this report.

- Analyze the findings of all the community outreach activities to delineate the reasons for views about GNEP facilities at INL and main questions and concerns. This information will guide future community outreach.

3.2 Community Outreach Methodology

This section provides the specifics of how community outreach was planned and implemented during this phase of the GNEP assessment for eastern and southern Idaho.

3.2.1 Briefing Materials

Table 3-1 lists the briefing materials that were prepared and distributed as part of the community outreach program. It was critical to develop and share some basic information about GNEP's purpose, components, and evaluation process as a basis for beginning a dialogue with Idahoans. The RDA team primarily utilized existing DOE-prepared materials for the initial one-on-one stakeholder interviews, augmented with two Idaho-specific informational sheets (items 1 and 2 in Table 3-1). During the stakeholder interviews, the interviewees were asked what might be done to supplement or improve the existing materials. For the community outreach activities that followed, some of these materials were used to answer additional questions. Specifically, during the focus groups, items 1, 3, and 4 of Table 3-1 were utilized to help inform citizens about GNEP. All of these materials can be found in Appendix A.

Table 3-1 Briefing Materials Used as Part of Outreach Program

| Item | Description | Used As |
|------|---|---|
| 1 | Project-specific prepared, duplex-printed "Commonly Asked Questions" sheet. | Brief for initial one-on-one stakeholder interviews and for follow-on community outreach activities; questions more specific to local concerns. |
| 2 | Single-sided Facility Summary Sheet | Brief for initial one-on-one stakeholder interviews; outlined types of proposed facilities. |
| 3 | Four page DOE-prepared GNEP Summary Sheet | Brief for initial one-on-one stakeholder interviews and for follow-on community outreach activities. |
| 4 | One page DOE-prepared "Potential Locations" single-sided fact sheet | Brief for initial one-on-one stakeholder interviews and for follow-on community outreach activities. |
| 5 | DOE-prepared "Dear Interested Party" duplex-printed letter | Brief for initial one-on-one stakeholder interviews. |

3.2.2 RDA Website

A GNEP site was developed and made available through RDA's existing website (<http://www.rdaidaho.org/gnep.php>) to provide online access to basic GNEP information for interviewees and other stakeholders. It will also serve as an easy-to-access information source for continuing information on GNEP as the DOE environmental process moves forward. At this time, the basic information developed for and used in community leadership interviews and for the community outreach activities is posted on the site with explanatory content. As further materials emerge, the RDA website will be updated to reflect currently available information.

3.2.3 One-on-One Interviews

The purpose of the one-on-one interviews was to identify a cross section of community opinion leaders throughout eastern and southern Idaho, and northwestern Wyoming, who might be able to identify issues, offer reactions to basic information materials, predict public reaction, frame questions for further analysis, and provide perspectives on GNEP's potential future in eastern Idaho. To accomplish this task, the RDA team pooled its knowledge about the communities who have traditionally been involved in INL activities and discussions, and other groups that might be expected to either support or have concerns with a new GNEP mission. Categories of stakeholders were established to include the broad spectrum, including:

- Local elected officials
- Federal and state agency representatives
- Business leaders (including large companies, real estate leaders, local investment groups, trade union leaders)
- Economic development entities
- Environmental and conservation non-governmental organizations
- Educational leaders (public schools, universities, technical institutions)
- Media
- Tribal governments
- Other opinion leaders in communities affected by INL

Table 3-2 summarizes the geographic and category distribution of the interviews completed, which totaled 46.

Table 3-2 Stakeholders Interviewed Sorted by Category

| Stakeholder Category | Idaho Falls | Twin Falls | Boise | Northwestern WY | Total |
|-----------------------------|--------------------|-------------------|--------------|------------------------|--------------|
| Local elected officials | 5 | 2 | | | 7 |
| Federal/state officials | 2 | | 3 | | 5 |
| Business leaders | 3 | 2 | 4 | | 9 |
| Economic development | 2 | 3 | 2 | 1 | 8 |
| Environmental/conservation | 1 | | 1 | 1 | 3 |
| Education | 3 | 3 | 2 | | 8 |
| Media | 1 | 1 | 1 | | 3 |
| Tribal government | 1 | | | | 1 |
| Other | 1 | 1 | | | 2 |

In planning for the one-on-one interviews, a team of six RDA communications team members made initial contacts and arranged one-hour personal meetings with target interviewees. Team members included staff from Battelle, BEA, EnviroIssues, and P2-solution. Calls were made and emails sent explaining the purpose of the interviews and the GNEP community outreach effort, and respondents were asked to commit to reviewing the basic information, participating in the interview, and reviewing the interview notes for accuracy and completeness. Appointments were made during mid-February, and confirmed interviewees were emailed the basic GNEP information materials (listed in Table 3-1) and their review requested prior to the interviews.

Reactions from community leaders approached by the team were generally positive. If people were aware of GNEP, they were often very willing to discuss it. If not aware of it, schedulers provided some basic verbal understanding. In a few cases, identified contacts declined to be interviewed, primarily because they were not available due to schedule constraints or because the topic was outside their personal or organizational areas of interest. In other instances, contacts suggested individuals who should be interviewed instead, whom they judged to be able to provide perspectives.

Two-person community outreach teams met personally with almost every community leader identified during late February and early March. A standardized interview protocol was established, which is attached in Appendix B. Interview notes were taken by hand during the discussions, and then summarized by each interview team. Review drafts were provided by email to each interviewee within a few days of the interview for their review. Requested revisions ranged from no changes to minor wording changes. Final interview summaries, not attributed to specific interviewees, are included in this report as Appendix C. Key themes from all the interviews were developed and are presented in Section 3.3.1 below. In addition, interview summaries and key themes were compiled and provided to community leaders by email in advance of the community outreach workshops for their overall review. The purpose of this was to use that content as the basis for further discussions at the outreach workshops.

3.2.4 Focus Groups with General Public

Focus groups with the general public were held to supplement the outreach with community leaders. The purpose was to understand how the public would receive GNEP facilities in the state, the reasons for their opinions, and the questions and concerns that would need to be addressed.

Focus groups were determined to be a better methodology at this point than a survey because GNEP is a new subject for the general public. Therefore, it was necessary to provide some background information about GNEP before assessing opinions, and focus groups are better suited than a survey for this purpose.

The focus group format provides an informal setting where people discuss the issues and interact. New ideas, questions, and concerns that may not be captured in a survey can be probed in-depth in focus groups.

3.2.5 Community Outreach Activities

On April 3, 4, and 5, 2007, three community outreach activities occurred. The first part of each activity was a workshop with community leaders who had been previously interviewed. The second part was two focus group sessions with members of the general public. The activities occurred in Idaho Falls, Twin Falls, and Boise on April 3, 4, and 5, 2007, respectively. Section 3.3.2 provides a summary of the results from the workshops and the focus groups in each locale.

(a) Community Leadership Workshop Sessions

Leading up to the workshops, community leaders received summaries of the interviews with respect to the issues, concerns, and questions raised (often referred to as themes) across the state. The team also made confirming telephone calls to interviewees to ensure they had received the materials and were planning to attend the outreach activities.

As an opening for each workshop, the facilitator thanked the participants for attending and described the objectives of the workshops as being to:

- (i) Help make sure that the summary of themes correctly and completely communicated the full range of stakeholder issues and reactions to the GNEP
- (ii) Get answers to technical questions about the GNEP
- (iii) Participate in a dialogue to understand other people's perspectives regarding GNEP

The facilitator emphasized that the point is not to have consensus on the issues but for participants to feel at the end of the session that their issues were heard and captured.

After introductions, a short reminder of the steps that lead up to the workshop, and a description of how the results would be used, the facilitator asked the group to decide whether they wanted to start with questions for the technical expert, who was present at each workshop, or to discuss the 16 themes on the

summary list (see Section 3.3.1). Different workshops started at different points but each group had a thorough discussion of the themes and spent time asking detailed technical questions of the expert.

(b) General Public Focus Group Sessions

Two focus group sessions were held in each location—Idaho Falls, Twin Falls, and Boise—for a total of six sub-groups. Each focus group session lasted for about two hours.

Bisconti Research, Inc. conducted the focus groups for the RDA team. The guide used in facilitating these sessions is in Appendix B. Northwest Research Group of Boise, which specializes in focus group facilities, recruitment, and logistics, conducted screener interviews by telephone in order to recruit about 10 persons per group with the following characteristics:

- News attentive (must read newspapers or follow news on radio or TV at least six days per week)
- Equal gender split
- One-third each Democrats, Republicans, and Independents
- Some ethnic diversity
- Good age spread (mostly 25–55)
- At least 50 percent college graduates
- Able to articulate important issues facing the world today

The rationale was to have a good demographic mix but focused on people who follow issues and are able to express opinions. The political party break was especially important because ideological differences in the United States today tend to be politically defined.

A total of 51 persons participated:

- 19 in Idaho Falls
- 13 in Twin Falls
- 19 in Boise

Focus group participants were seated around a table, and the discussion was led by a moderator. The main topics of all the focus group sessions included:

- Energy problems facing the nation or the world—this topic was used to warm up the discussion and also to learn about underlying concerns that people in Idaho have today about energy.
- Opinions about GNEP—the four-page overview from the GNEP website was handed out to participants to read for background information (Appendix A).

- Opinions about having one or more of the GNEP facilities at INL—a two-page document by RDA entitled “Some Common Questions about the Global Nuclear Energy Partnership” was handed out as background, along with a map of the United States showing the candidate sites (Appendix A).

About 20 minutes of the sessions were devoted to a small group exercise. Participants were divided into two groups. Each small group was given this assignment:

- 1) Describe GNEP in simple terms. Think about how you would describe GNEP to your next door neighbor.
- 2) Decide as a group whether or not GNEP facilities should come to INL. Decide yes or no and explain why. If you cannot agree, say so and explain the different opinions.

The small groups worked independently. The moderator observed but did not direct or participate in their discussions. Each small group assigned a member as scribe to write their points on an easel pad and a reporter to report back to the full group. Everyone participated in the ensuing full group discussion.

3.3 Results – Stakeholder Interviews and Community Outreach Activities

This section provides the results of the community outreach, including key themes from the interviews and both segments of the community outreach activities.

3.3.1 One-on-One Interviews with Community Leaders

A wealth of information resulted from the one-on-one interviews held with 47 community leaders from throughout eastern and southern Idaho and Jackson, Wyoming. Using the standard interview protocol described above, interviewees were encouraged to provide their perspectives, reactions, and ideas about the process in an objective, open-ended discussion format. Team members facilitating the interviews were careful to present the information objectively and to draw out full responses to the questions without reacting or responding.

Interview summaries were distributed to all interviewees for review. Detailed summaries of the interviews are included in this report as Appendix C. Key themes as summarized from the interviews include the following:

1. Significant support exists, most strongly in the Idaho Falls area

Significant support exists for locating GNEP facilities in eastern Idaho, especially in the Idaho Falls area. Reasons cited included the need for cleaner forms of energy to solve the energy crisis/combat climate change, economic benefits from new facilities including jobs in the area, and maintaining and improving upon eastern Idaho’s reputation as a technologically advanced and research oriented resource for the country and the world (all described below). Interviewees from areas at a greater distance from the proposed GNEP locations (Pocatello, Twin Falls, and Boise) also show significant support, though

their citizenry may be less knowledgeable about INL activities and history and, therefore, perhaps not as overwhelmingly supportive as the Idaho Falls area.

2. A few interviewees oppose any GNEP facilities

A few interviewees opposed GNEP in concept. From a policy standpoint, two individuals interviewed indicated that they are opposed to operating GNEP facilities. Their opposition was based on discomfort with further and very expensive investments in nuclear energy and what they feel to be unnecessary reprocessing, fears for safety and the environment, concern about nuclear proliferation, and dissatisfaction with how traditional reprocessing had operated and how GNEP may not be as different from older methods as DOE believes. One interviewee felt that sharing this technology with other nations that may be our friends today but could become adversaries in the future was unwise, because they could somehow use the technology against us. Furthermore, DOE should be focused on its cleanup mission at its sites and investing in renewable energy solutions rather than nuclear energy. One other interviewee indicated that research-scale facilities at INL are consistent with its mission, but that the mission does not allow for commercial-scale operations of nuclear facilities. Characterizing the GNEP processes as “recycling” rather than “reprocessing” was also seen as inappropriate by these individuals; they perceived the information materials provided for review to be biased in favor of the GNEP program. One interviewee feared that deciding to reprocess spent fuel is a policy change that would fundamentally change the U.S. role in nonproliferation and our reputation worldwide. Such a major shift in public policy should not be rushed. It was also feared by one interviewee that the utilities would oppose GNEP because it will make reprocessed fuel rods very expensive unless they are heavily subsidized.

3. GNEP is seen by many as an important solution to solve the energy crisis/fight climate change

Many interviewees see nuclear energy as an evolving technology that must be considered into the future if we are to start solving the energy crisis. This comment was often made in reference to our political situation in the Middle East and beyond and/or in relation to our need to reduce our national dependence on foreign energy sources. Moreover, some saw the need for DOE to do a better job at defining GNEP as a means to help address climate change. Nuclear energy could be used in conjunction with conservation and renewable energy alternatives to reduce greenhouse gas emissions that are released by carbon emitting utilities.

4. Economic benefits are of interest

Economic benefits were often expressed as a potential benefit of GNEP facility development at the INL site, focusing on the importance of sustainable, consistent long-term investments and benefits. Some leaders see the potential in GNEP and other INL assets, including research results and investments, that might be leveraged to increase technologies (e.g., medical, energy). Some interviewees perceive that economic benefits have long accrued primarily to the Idaho Falls area, and GNEP might be an opportunity to spread them more broadly (such as to Bannock County) and to leverage them more effectively.

5. Consistency with INL mission is important

Most community leaders interviewed are highly knowledgeable about INL's history, accomplishments, mission, and safety record. Many described pride in being the home of such a renowned institution. Almost all interviewees strongly support advancing INL's mission, which includes emphasis on research and building on the legacy of nuclear activities and historically safe research activities. Some questions were raised, however, about the wisdom of scaling up research technologies to commercial-scale facilities, both in terms of technical challenges and in terms of compatibility with INL's traditional research mission.

6. Interest exists in reducing stockpiles of spent fuel

Interviewees understood the preliminary information about how GNEP could improve the safety of spent fuel management in this country and potentially abroad, and the goals for reducing nuclear proliferation risk as well as reducing high-level waste disposal needs in the United States. Reactions to those concepts were generally positive, though questions arose about how those goals could be accomplished viably with safety. Such questions included how DOE plans to track/monitor all materials coming into Idaho, and how DOE plans to develop safeguards to ensure products of reprocessing do not get into the wrong hands, etc.

7. Questions were raised about residual waste products

The single largest question raised was in reference to waste products remaining after the GNEP processes are complete. Broadly, interviewees asked what the volumes of waste would be; what its characteristics would be in terms of waste form, radiation level, and toxicity; how and for how long it would need to be stored; and, importantly, what would be the clear path and timeline for removing residuals from Idaho. Where will low-level radioactive waste be disposed? What happens if Yucca Mountain never opens? Will the high-level waste remain in Idaho forever? These issues will be of interest to many, and will require further information and discussion. Discussions with the tribal government resulted in questions about waste production and disposition, accumulation of spent fuel and wastes at INL, Yucca Mountain's schedule and policies, and other similar waste related areas.

8. The Idaho Settlement Agreement warrants discussion

Some have expressed belief that Idaho's Settlement Agreement with DOE bars shipment of commercial spent fuel to Idaho; many others believe an arrangement might be possible that would honor the Settlement Agreement while still allowing spent fuel to come to Idaho in support of GNEP's research mission. This is another issue that will bear further discussion.

9. Transportation of spent fuel raises questions

Some concern exists about transportation risk in terms of bringing spent fuel from all over the country to Idaho; some believe GNEP facilities should be located nearest to stockpiles of spent fuel to minimize shipping distances. Many people believe spent fuel transport could be done safely, but suggested that information and education about shipping safeguards, historic safety records, and emergency response planning would

need to be a priority. Of special interest to the tribal government is the transportation of spent fuel and waste materials over or near their reservation. The tribal governments place strong emphasis on their tribal sovereignty.

10. Facility details need to be further defined

More information will be welcomed on the details of GNEP technologies and facilities. People are interested in facility footprint and configurations, operating technologies for a GNEP reactor compared with a standard reactor, realities of how UREX+ compares to PUREX process in terms of proliferation resistance, how nuclear materials would be managed and monitored (full material accountability throughout processing steps), how the facilities would ultimately be decommissioned, and other details of GNEP design and operation. One interviewee wanted to know what type of reactor is planned for the ARR; if it is a sodium-cooled reactor, the interviewee has concerns. Whether the facilities would be owned and operated by the government or by private industry is also a question to be answered, and may affect public confidence—some believe a private entity would be more trustworthy and more reliable than a federal government that changes administrations and priorities. Another interviewee felt that the facilities should be under federal control (or by a federal contractor) because a private company may be more subject to short-cutting environmental and regulatory issues due to performance incentives. Some felt that more detail is needed on the estimated full costs of GNEP. A few interviewees had questions about scaling up the facilities and how difficult this will be. Several interviewees wanted to know about the timing for the three facilities associated with GNEP; will the research facility be built before or after the other two facilities? Similarly, there are uncertainties associated with making fuel (from NFRC) for the ARR. Also, how does Gen IV research on the next generation of reactor compete with GNEP?

11. People care about safety and nonproliferation

Another category of questions that will need to be answered focus on safety. Discussions with the tribal government resulted in questions about accident response. Interviewees indicated that they, and more broadly the people of Idaho, will want information about adequacy of safety measures to protect against worker and public exposure, about potential criticality of the processes, and about safeguarding nuclear materials from terrorist, criminal, and natural disaster events. While many reacted favorably to the concept of reducing proliferation risk via improved waste material separation and the formation and handling of isotopes, others believe that reprocessing spent fuel increases the potential for nefarious access to weapons materials.

12. Regulatory hurdles remain to be addressed

The GNEP responsible program management will also need to convince the regulatory bodies in the DOE or NRC that the program can be done safely. Unless there is a definitive regulatory/permitting process, businesses/investors will not commit capital to the projects.

13. Environmental impacts need to be considered

Analyses on the potential of GNEP facilities at the INL site will need to assure Idahoans that environmental impacts have been avoided, minimized, or can be mitigated.

Interviewees asked that work be done on how GNEP facilities could potentially affect water quality in the Snake River Plain Aquifer, emit airborne contamination, be damaged or destroyed by seismic events, and require supplies of water that would impinge on eastern and central Idaho's precious water resources. Water issues are of particular concern to stakeholders in the Twin Falls region. There was a specific question about water quantity; how much water will GNEP facilities require and how do they plan to obtain water rights? Some had questions about uranium mining impacts resulting from increasing use of nuclear energy in this country and globally. The tribal government raised questions about natural resources and environmental protection.

14. Funding by and trust of the federal players are both questioned

Another policy question raised was whether DOE and Congress are in a position to commit the needed resources and funding to make GNEP a reality. GNEP facilities would be very costly (robots, hot cells, etc.) and funding levels for GNEP-like projects have traditionally been too low. Idaho has often supported new investments in technology at INL, and has sometimes been disappointed when they do not follow through to construction. Idahoans will want to understand the steps to be taken, should GNEP proceed, to create certainty about time frames and needed investments. Other interviewees indicated that there is public distrust of government overall, of DOE based on past non-transparent activities and resulting problems, and likely distrust of this initiative from some sectors of the population. DOE needs to fully open up the process and be totally transparent. Credible third-party experts may need to engage in the discussion to build trust for GNEP if it moves forward. Generalized distrust of nuclear facilities may cause citizens to equate GNEP reactor operations with the Chernobyl and Three Mile Island accidents.

15. The international scope of GNEP is not yet well defined

Global aspects of what is being proposed are unclear. Which nations are providing which services for which other nations? Information needs to be provided for the public to understand the full ramifications of GNEP.

16. Timing is off—some see the need to accelerate GNEP, while others want slower movement

For some, GNEP is not on a fast enough track. The United States is already well behind other countries in leading cutting-edge nuclear energy research and this project is not happening quickly enough to advance the U.S. position. On the contrary, another interviewee felt that DOE should not be rushing into GNEP—the U.S. should first build more nuclear power plants, and then the Advanced Fuel Cycle Research Facility (AFCRF) prior to building the recycling center and the reactor.

3.3.2 Community Outreach Activities

(a) Community Leader Workshops

The following summary provides the additional comments and questions heard at each of the three community leader workshops organized around the original 16 themes (including new themes if offered) and additional questions that were asked.

1. Significant support exists, most strongly in the Idaho Falls area

Idaho Falls: No additional comments offered because participants felt the summary well captured the support.

Twin Falls: One participant argued that to secure future support of GNEP, messaging will be very important. DOE should research community perspectives and know what issues need to be addressed. What will sell GNEP to the general public? First answer this question, and then develop a proactive campaign instead of a reactive response. There is some belief that the general public will not resist GNEP in Idaho.

Boise: One participant listed the following entities as having support for and interest in GNEP: three universities, 17 mayors who attended the PEIS scoping meeting, both the State House and Senate (with some dissent), the U.S. Congressional delegation, and the Chambers of Commerce throughout the state. There was some discussion about whether these entities truly endorse GNEP or are simply in favor of the economic development GNEP might bring to the state. It was agreed that GNEP complexities are not yet well understood, but that many support GNEP because it provides part of a solution to our energy crisis—a relatively clean and environmentally friendly alternative to oil/coal, and an opportunity for extending the INL mission.

2. A few interviewees oppose any GNEP facilities

Idaho Falls, Twin Falls, and Boise: No specific comments offered; participants felt that the summary captured their comments or they brought up specifics under other themes.

3. GNEP is seen by many as an important solution to solve the energy crisis/fight climate change

Idaho Falls: One participant recognized that the United States is not linked with other countries in combating climate change (e.g., Kyoto Protocol).

Twin Falls: It is believed by some that the next generation of nuclear reactors will provide a clean alternative and can help us reduce our dependency on energy that currently impacts climate change. DOE should be using this fact to develop political support for GNEP.

Boise: A policy discussion took place during the workshop. While some feel that nuclear energy helps solve greenhouse gas problems, another stakeholder brought up the point that uranium mining and other related activities increase greenhouse gas contribution. Another stakeholder countered: if there was an effort to shut down all nuclear power plants, we would see a rise in greenhouse gases.

4. Economic benefits are of interest

Idaho Falls: No new comments.

Twin Falls: A stakeholder suggested the concept of an extraction tax to compensate for risk to Idaho citizens. For every kilowatt hour produced or for every ton of resulting waste, provide the state some type of compensation. This is somewhat akin to the tax utilities pay into the federal pool to cover current spent fuel disposal expenses that the government is to handle. Funds from such a tax could help benefit citizens across Idaho (e.g., education) and would go a long way towards building good will in the state. Stakeholders talked about power benefits as well. There was a coal-fired power plant proposed in the area that was shelved because the power was to be sold out of state and the citizens did not want to assume the risks with limited benefits (jobs). There is a lesson from this. Stakeholders think that energy produced through the ARR should become local power (sell power to the Idaho grid). These policy arrangements will need to be negotiated.

Boise: Stakeholders felt that diversification of jobs undoubtedly provides value, but it would be helpful for the state to receive some support for GNEP-related infrastructure needs.

5. Consistency with INL mission is important

Idaho Falls: Some felt that research is more critical to the mission of INL than developing a commercial venture to produce electricity.

Twin Falls: Stakeholders saw INL as the lead nuclear laboratory in the nation, but with GNEP, will it become more of a quasi-utility? Will this result in a change in mission? During this discussion, additional questions were asked about the entities that will operate the GNEP facilities and the resulting power—who are they? One stakeholder asked about the status of nuclear space batteries being built at INL. It was raised that other competing projects at the site will be important to consider.

Boise: One stakeholder asked whether GNEP fit INL's mission. There is great fear by some that INL's mission will expand if waste comes to and does not leave Idaho, thereby becoming a long-term storage facility.

6. Interest exists in reducing stockpiles of spent fuel

Idaho Falls: One participant asked how the spent fuel shipped into the site would be stored and for how long. Another participant responded that a Deputy Director of DOE had said "Let's not kid ourselves, we're talking decades" in referring to how long spent fuel will be stored. Another participant asked at what point can no more spent fuel be stored under the current system? Another participant said that the current funds from the federal government to pay them because the government is not in a position to take title to the waste as is required under the Nuclear Waste Policy Act.

Twin Falls: A discussion ensued about delays with Yucca Mountain receiving shipments of waste. There is a clear need to ensure a waste repository is open and accepting waste.

Boise: Some stakeholders look to GNEP as a means to free more space at Yucca Mountain. Depending on the design/quantities of waste processed, the amount of long-lived waste may be permanently reduced. However, the amount of low-level waste is unknown and represents another concern to some. One individual thought it prudent to tag a fourth component to GNEP—completion of Yucca Mountain.

7. Questions were raised about residual waste products

This theme was one of greatest interest to all stakeholders at all locations. Stakeholders want to understand what the residual wastes are associated with the current fuel once-through approach versus the recycling approach proposed under GNEP.

Idaho Falls: One participant raised the point that problems could occur with the waste streams generated. Another participant pointed out the GNEP is an approach to minimize the waste streams and address the constant pileup of spent fuel. A different participant said that it was irresponsible that the current pile up of spent fuel was allowed to go on as long as it had without being addressed. Another participant asked what the treatment plans were for the waste streams coming out of GNEP, and was also asked about the break-down in types of waste that would result from GNEP. A participant said that reprocessing of spent fuel is very costly given each step you have to put the material through. Another participant read in a Harvard study that reprocessing is 10 to 20 times the cost of once-through spent fuel management.

Twin Falls: A long-term management plan for residuals is needed.

Boise: There is concern that INL will become another Yucca Mountain. Some feel that DOE should investigate interim storage alternatives instead of rushing into reprocessing. Others feel we should more thoroughly investigate the utility of the waste components we currently think are unusable. One stakeholder thought it prudent to hold community forums to discuss the waste, its constituents, risks, uncertainties, and alternatives.

8. The Idaho Settlement Agreement warrants discussion

Idaho Falls: One participant asked about the impact of the Settlement Agreement on GNEP and the response from one of the interviewers was that the team had heard a range of positions from the various community leaders interviewed so there appeared to be no one answer as to whether the Agreement needed to be revisited but it was clear that it needed to be further discussed.

Twin Falls: There are some who believe that the Settlement Agreement will need to be revised.

Boise: Generally, stakeholders believe that the spirit of the Settlement Agreement was not to prohibit reprocessing. Rather, the Agreement was

designed to keep Idaho from becoming a long-term waste storage (defacto disposal) facility.

9. Transportation of spent fuel raises questions

Idaho Falls: No additional comments.

Twin Falls: Spent fuel would arrive in Idaho from up to 104 light water reactors (LWRs) across the country. (Note that there are currently 103 operating reactors and one additional reactor that has an operating license that is expected to restart in the next one to two months). The question was asked if it would be possible to divert the waste to locations for weapons grade material.

Boise: One participant feels that there are unresolved issues surrounding the transportation of commercially spent nuclear fuel in and out of Idaho. The country needs to be careful given that the political future is uncertain—"our friends today may be tomorrow's enemies." Another stakeholder argued that shipments of spent fuel have been shipped all over the globe for the past 50 years with no accident.

10. Facility details need to be further defined

There was much interest by stakeholders at all three workshops to better understand the specifics envisioned for the GNEP facilities.

Idaho Falls: One participant asked about scale-up of the technologies behind GNEP. A question was asked about the schedule for having the GNEP facilities operational.

Twin Falls: No additional comments.

Boise: Some stakeholders felt that the lack of definition makes GNEP very difficult to assess. More details are needed for Congress and for Idaho before a decision can be made about how to proceed. Stakeholders saw that a phased approach might make the most sense to move from a demonstration facility to a full-scale commercial facility.

11. People care about safety and non-proliferation

Idaho Falls: No additional comments.

Twin Falls: Stakeholders see a real need to address safety concerns. In addition, even though there is an effort to become an international leader and potentially the ability to observe other countries in their enrichment pursuits, proliferation will be difficult to control. GNEP won't stop the "Irans" but it could stop mid-level players and other countries currently lacking ways to make fuel (that could be diverted to make a bomb).

Boise: If there is only one ARR built in the country, it may result in fuel without a home. There will be a need for several of these fast reactors for the system to

work effectively. One stakeholder quoted testimony from Harvard's Matt Bunn who did not feel that GNEP was a good nonproliferation option and that we were moving too quickly to support it. This same individual asked whether a terrorist could make a bomb from the material coming out of the NFRC.

12. Regulatory hurdles remain to be addressed

Idaho Falls: RDA mentioned that it is looking at all possible regulatory issues in its drafting of its siting study for DOE.

Twin Falls: No additional comments.

Boise: No additional comments.

13. Environmental impacts need to be considered

Idaho Falls: One participant wanted to know how much water would be used by the group of facilities and how much of it would be contaminated. One participant raised concern that contamination problems have occurred at other sites conducting reprocessing and questioned why GNEP would be different.

Twin Falls: Environmental issues that arose include water quantity and uranium reserves. In terms of uranium, the question of whether there is enough reserve in the United States to support nuclear power resurgence arose.

Boise: Environmental issues that arose include liquid waste concerns and the need to vitrify some wastes and how vitrification has historically been problematic at other sites. One stakeholder mentioned a leak that had occurred at an English reprocessing facility that went on undetected.

14. Funding by and trust of the federal players are both questioned

This theme was one of the major ones debated at each of the workshops. The lack of political will to fund GNEP for the number of years necessary to see it become a reality was discussed at each workshop.

Idaho Falls: The discussion at the workshop began with one participant questioning whether GNEP will ever be a reality. The participant is skeptical that DOE and the Administration have the political will to carry out the mission. Another participant argued that GNEP is an important step to help the United States catch up with several other countries that have passed the United States in nuclear research, development, and implementation. Another participant agreed and said that if the public doesn't let the Congress know how important this project is, the politicians won't support funding. It was recognized by several that the funding necessary for GNEP is enormous, which could be a barrier.

Twin Falls: Questions on funding were raised. Who will pay for GNEP? Will it be DOE and/or the 104 LWRs across the country? One stakeholder thought it would be more palatable if the 104 reactors were paying (or helping pay) for the

GNEP solution. In addition, distrust of the federal government was discussed. One potential solution is to focus more on INL presence across the state. Currently, the community does not have a good sense where to go within INL for information (INL's presence in Twin Falls seemed to end in 1995). Finally, there are some stakeholders who think GNEP may be an exercise in futility – will this GNEP effort really move forward given funding constraints and given the lessons learned at the nation's waste repository?

Boise: There are questions about whether the political will exists to see the GNEP through to fruition. Can Congress come up with the money needed to support such an effort, especially in light of the fact that Japan's new reprocessing facility cost roughly \$30 billion? One stakeholder suggested evaluating other DOE projects to ensure that there is no duplication of effort. On another point (mentioned above), funding should be provided to boost Idaho's infrastructure in order to better support GNEP. This comment mostly focused on the need to establish a higher education research capacity in Idaho (but also kindergarten through 12th grade). Moreover, the state should seize the opportunity for teacher/professional development through learning experiences through GNEP. One stakeholder thought it was important to also include solar and wind power as part of that experience (go beyond nuclear).

15. The international scope of GNEP is not yet well defined

Idaho Falls: It was pointed out that global partnership is not occurring well enough and that other countries are significantly ahead of the United States in developing capability in this area.

Twin Falls: One stakeholder raised how GNEP is going to address proliferation with overseas partners.

Boise: Many felt that the international component of GNEP is vague and requires clarification.

16. Timing is off—some see the need to accelerate GNEP, while others want slower movement

Idaho Falls: One participant argued that we don't have time to wait. We are being left in the dust and need to move ahead with nuclear power. Another participant said that politicians move at their own pace and that timing isn't always perfectly aligned with science and urgency.

Twin Falls: The general schedule was reviewed—the AFCRF is expected to be built by 2016, the Nuclear Fuel Recycling will be completed around 2020, and the ARR is projected to be complete by 2021. The feeling in this group was that the timing couldn't be much improved. It was noted that the last commercial power plant built in the United States was in the late 1970s so it has been many years since the industry has been revitalized.

Boise: Although the GNEP research facility is planned first, there is some concern that DOE has the ‘cart before the horse’ in terms of schedule. One stakeholder thought there is not enough time between the building of the research facility and building of the other two GNEP facilities, four years later. There is not enough time for R&D, application of new concepts, and maturing technologies to be considered in the subsequent facilities. This individual felt that because there was a lack of complete confidence in the UREX+ process, more research is needed, which means there needs to be a longer time frame for the research facility to operate prior to building the other two facilities. Another stakeholder thought that DOE has a mistakenly optimistic schedule. Yet another felt that much research has been done on fast reactors and we don’t need to do decades of more research to build this facility. Demonstrations are the way to answer these technology questions and Idaho is the place to tackle these questions. A few felt that timing and sequence of GNEP facilities require further thought and clarification.

New Themes

17. Utilities need to strongly participate

Idaho Falls: It was recognized that if new reactors are going to be needed to burn this newly-made fuel, then utilities are going to have to support GNEP and be willing to pay for these new generation reactors and to buy recycled fuel.

18. Better messaging to the public is needed

Twin Falls: One stakeholder listed the four primary issues that needed to be addressed in telling the story: (1) safety of the plants ensured; (2) potential environmental health effects managed well; (3) security to address proliferation concerns managed; and (4) benefits to Idahoans and the world (e.g., greenhouse gas reduction described). The INL site often does a poor job of marketing itself. It projects this image that “the world is against us” when in reality folks across the state actually support the work at INL. The site needs to be less reactive and much more proactive in telling its story. The story needs to include that there are no alternative major blocks of power, other than nuclear, that don’t emit greenhouse gases. We really have no other options.

Boise: Stakeholders saw the need to shift the dialogue away from fear and towards solutions. There was a Boise State University survey conducted on energy alternative preferences that found more interest in nuclear than one would necessarily think.

Other Questions

19. Nuclear power options?

Idaho Falls: One participant asked what alternatives the United States really has in general concerning nuclear power. Another participant questioned whether the country should be limiting itself to GNEP as the best answer.

Boise: With respect to GNEP, the question was raised if DOE has done a good job of defining its contingency plans if GNEP does not move ahead? Stakeholders were also interested in knowing what the different frameworks look like for GNEP if it is sited at a DOE site versus a private site (e.g., Atomic City)? What additional oversight would there be of the latter? One stakeholder felt that the government should run this program and that we need to get on with it. “We need a better energy policy and lead globally.”

20. Is seismicity an issue?

Idaho Falls: A question was raised about the seismic safety of the site.

21. Any connection between GNEP and the commercial nuclear power plant being proposed in a different part of the state?

Twin Falls: No; these are completely different initiatives.

(b) Focus Groups with Cross Sections of Citizens

Idaho Falls participants were enthusiastic about having the GNEP facilities at INL. All were familiar with INL. INL is such a large presence in Idaho Falls that all participants except one knew people who work there. They saw many good reasons to have GNEP at INL but also raised questions and concerns, primarily about the ability of the local infrastructure to support a population influx. Participants in Twin Falls and Boise expressed more ambivalence; the large majority in both locations supported the facilities at INL, but many did so with some reservations.

Main energy concerns raised by the focus group participants were the high price of gasoline, United States dependence on foreign sources of energy, and inefficient use of resources:

- *Idaho Falls:* Participants discussed over-dependence on fossil fuels, government inaction to find alternatives, the influence of big oil, the cost of transportation, and too many big cars.
- *Twin Falls:* Problems identified included the high price of gasoline, running out of resources, dependence on foreign oil, the need to conserve more, and not enough use of nuclear energy.
- *Boise:* Dependence on foreign oil, gas prices, and the need for alternative transportation fuels dominated the discussion of energy problems.

Overall reactions to information about GNEP were largely favorable:

- *Idaho Falls:* 17 out of 19 thought that GNEP is a good idea. The most appealing features were recycling the used fuel to make more electricity and reduce waste, reducing dependence on fossil fuels, having cleaner air, the idea of a global partnership, monitoring for peaceful uses, and the research component (“out of this should come new things”). One noted that we should not limit the search to one source but should keep up research on a mix of energy sources.

- *Twin Falls:* The first group felt unable to judge if GNEP is a good idea or not. In the second group, five out of seven were very favorable to GNEP. Main appeals included using less fossil fuels/less dependence on foreign energy, clean air, recycling used fuel to make more energy and reduce waste, monitoring to reduce misuse of nuclear materials, sharing power globally to help others, possibly lower prices of electricity, and the potential that GNEP might encourage completion of Yucca Mountain.
- *Boise:* Participants held mixed views about nuclear energy but most saw benefits in GNEP, including better control over how nuclear energy is managed worldwide, recycling the used nuclear fuel, less fossil fuel use, better life for other countries, planning for the future, and thinking outside the box.

Questions and concerns about GNEP were listed and discussed in all the groups. Main points included the feasibility or reality of GNEP and generic concerns about nuclear energy.

- *Idaho Falls:* Some questioned if there are sufficient funds and political will to make GNEP happen, if there would be sufficient public acceptance, whether big oil would fight it, and whether the political climate might change. Some wondered who runs GNEP, which countries might be involved and how their participation might affect the United States, what is the timeframe, how GNEP would make the world safer and reduce the risk of proliferation, and what are the costs if we do and do not go forward with GNEP.
- *Twin Falls:* Two participants focused on the dangers of nuclear energy and cancer rates and questioned why they hadn't heard about GNEP before. Others wondered which countries would be involved, who profits from GNEP (private company, the government?), whether the technology is known or still to be developed, how cost-effective nuclear energy would be compared with other sources, whether waste disposal is safe, how much waste would be transported, and what methods would be used to transport the waste. Many Twin Falls participants exhibited confusion about the characteristics of used nuclear fuel.
- *Boise:* Questions and concerns centered on the control of other countries (can the United States control other countries, and should the United States control others), as well as negative feelings about nuclear energy ("I know a bunch of people from the Ukraine who lived near Chernobyl; nuclear just gives me the heebie jeebies"), health concerns ("I think there is a risk for genetic effects; I have a child with Down's Syndrome"), and worries about the waste from the whole world coming to the United States.

Reactions to having one or more of the GNEP facilities at INL were most favorable in Idaho Falls.

- *Idaho Falls:* Participants in Idaho Falls expressed strong support for having GNEP facilities at INL and cited public acceptance. "We want it here." "I

think people would be very accepting of it. They are very familiar with nuclear; it's part of their lifestyle. Only a minute few would not accept it." In the general discussion, reasons given why the project should come to INL included help to the economy, existing expertise at INL with similar technologies, safety consciousness at INL, the remoteness of INL, and the need for new research tasks for INL. Participants also mentioned jobs and family ties, "Educate the kids and let them have jobs here, and families can stay together like in the olden days, I want my grandchildren to have jobs here, so they can stay close to home."

- *Twin Falls:* Twin Falls participants expressed mixed opinions about GNEP facilities coming to INL: some were highly enthusiastic, some negative, and others ambivalent. On the one hand, participants saw benefits to the economy and jobs and the potential for electricity generation and waste clean-up. They also cited INL's existing capability and the value of GNEP, "I'd like to see us utilize what we have and get those kinds of jobs, doing something great for the world." On the other hand, some were leery of an activity involving nuclear waste due to the history of "waste mismanagement" at INL (Cold War legacy), and some were uneasy about anything nuclear.
- *Boise:* Participants varied in their views about nuclear energy but most saw good reasons for having the GNEP facilities at INL including that INL already has similar facilities, the location is remote, waste would be reprocessed, and the project would boost the economy and bring jobs. In describing the remoteness of INL, one noted, "There is nothing out there. If something does go wrong, it might kill a couple of jackrabbits."

Specific questions and concerns were raised in each location, even by persons who supported having the facilities at INL.

- *Idaho Falls:* The main concern of Idaho Falls participants was that the infrastructure, including schools, would need to be improved to accommodate population growth: "Families are coming in droves, but the growth is coming in so quickly we can't keep up. It isn't being managed well. I worry about infrastructure because there are going to be more people." A couple of participants noted that growth would bring traffic and crime. One person expected that some people might be against the project because of the shallow aquifer and past history of leaks into the aquifer due to "lack of knowledge" at the time.
- *Twin Falls:* Questions were largely about waste. Will Idaho become a waste dump? Will the existing waste at INL be used for recycling? Will this help in any way with INL waste clean-up? Does nuclear waste contaminate water? Some worried about a Chernobyl-type accident or about effects in the future that cannot be predicted today. Some expressed a deep seated distrust of institutions and expectations that profit motive would take priority over safety.

- *Boise:* Members of one Boise group expressed a lack of understanding of used nuclear fuel. They asked what “it” is and what “it” does and said it would be difficult to form an opinion without knowing more. One noted, “I think there is too much we don’t know about what it does. I don’t think you are going to convince a lot of people that nuclear waste is anything other than nuclear waste.” Some expressed concern about accidents and wanted to know how the facilities would be different from Chernobyl.

Each focus group was divided into two small groups and assigned two tasks. The first task was to write down “how you would describe GNEP in simple terms to a neighbor.” All groups struggled with what GNEP is organizationally and ultimately came up with different statements (partnership, contract between nations, initiative, global initiative, U.S. government initiative, organization, agency, entity). After overcoming that hurdle, they had no difficulty stating GNEP goals including recycling and reducing waste, reducing misuse of nuclear materials/weapons growth, safeguards, using more nuclear energy, sharing nuclear energy, and benefits to energy security and to the environment.

Idaho Falls: four small groups’ descriptions of GNEP verbatim:

1. A partnership or contract between nations to develop safe, reliable, affordable energy, safeguards in place, pluses reduce the waste, re-use the waste, reduce greenhouse gases, reduce imported oil. It is environmentally friendly and intended for non-military use.
2. Renewable energy, sharing global energy, the safety issue—taking the dirty rods and re-use them and make it safer and clean it all up.
3. Global initiative to control nuclear waste and proliferation.
4. Read the first paragraph in the basic GNEP four-page publication from the website and also said, we would tell our neighbor that it is a global initiative for safe expansion of nuclear power. Address the threat of proliferation without producing the same waste. Get more energy while controlling the plutonium, controlling where it goes. The alternative is that these countries can get these technologies from someone else.

Twin Falls: four small groups’ descriptions of GNEP verbatim:

1. An initiative by the DOE to:
 - Expand use of nuclear power
 - Use technology to recycle/manage spent nuclear fuel and waste
 - Enhance proliferation resistant technologies and improve nuclear safety

2. Organization designed to create safe nuclear, reduce misuse of nuclear energy internationally.
3. GNEP is a global initiative to recycle nuclear waste—it seeks to share worldwide nuclear energy—control and regulation—make recycled waste less dangerous—keeps United States on top of innovation.
4. GNEP is a U.S. government initiative of the DOE to encourage new development of nuclear power while reducing risks to safety and the environment. The idea is to create an exportable nuclear energy, and thus it is global.

Boise: four small groups' descriptions of GNEP verbatim:

1. An organization to have a strategy to increase U.S. and global energy security—reduce the risk of nuclear weapon growth. To promote nuclear power technology. Technology to provide the expansion of clean and safe energy.
2. A neutral international agency that promotes global nuclear energy; recycles the energy while having less waste while at the same time being able to monitor the misuse of energy.
3. Global Nuclear Energy Partnership—The United States and other countries working on alternative energy.
4. Global entity with both countries and corporations focusing on increasing usage of nuclear power worldwide and making the power safer and more available worldwide, focusing on environment and global security.

The second task was to decide if the GNEP facilities should come to INL—yes or no. Most said yes.

Idaho Falls: four small groups' decisions on GNEP at INL and reasons:

1. Yes, it sounds reasonable:
 - A lot of space far from any city.
 - Existing technology, infrastructure, and expertise.
 - Nuclear started here.
 - People who live here are technology friendly/savvy.
 - Most people here would take it in with open arms.
 - Good for people who come here: recreation, reasonable real estate.
 - GNEP would bring more money for more research at INL.

2. Yes, INL should do it:
 - Existing facilities and people.
 - Good paying jobs.
 - Nice place to live: recreation, music, theater.
 - Engineering school as resource for people for GNEP.
3. Yes, have it here:
 - Boost the economy.
 - Increase local jobs.
 - INL needs a new big viable project, an infusion of dollars.
 - Boost diversity of education level of area. Raise expectation of level of performance for local school children.
 - The expertise is here.
 - Time is now to develop recycling of nuclear fuel.
4. Yes, these projects would be good for Idaho for these reasons:
 - Employment.
 - Money.
 - Prestige.
 - Continuation of facility use.
 - Experienced management and labor.
 - Education—children and grandchildren.
 - Growth of community and family ties.
 - Money.
 - Cycle of education and work.

Twin Falls: four small groups' decisions on GNEP at INL and reasons:

1. Split on whether having the projects at INL is a good thing or not. If it cleaned up the existing waste, we'd all agree on it. We can see it as an economic boom for the area. We have questions about safety.
2. Yes:
 - Existing facility.
 - Up to speed in dealing with things like that.
 - Investment made and not used.
 - Good for jobs at INL.

- More money coming to the state for advancing our schools, universities by being the hosting state.
 - Cleaner energy.
 - Recycling spent fuel reduces storage requirements.
 - Global involvement with other industrial and developing countries—good to have them all on the same page.
 - World population will share.
 - More self sufficiency for the United States.
 - Safer.
 - Question: Can water be recycled too?
3. Yes, it's good for Idaho.
- We have the trained workforce; we're on top of it; well established.
 - Already use waste at INL.
 - It would generate income for the state; economic benefit/jobs.
 - Less fossil fuel.
 - R&D to make nuclear a safe alternative.
 - Less air pollution.
 - Recycling spent nuclear product makes more energy, less waste.
 - Renewable type of energy; use it again.
4. A GNEP facility should come to INL, as long as the scientists at INL support it. (This group felt unqualified to make the decision and so left the decision to the scientists at INL).

Boise: four small groups' decisions on GNEP at INL and reasons:

1. No decision: too many unanswered questions concerning the waste, where it is coming from, how it is going to be transported.
2. Yes, with reservations:
 - Will happen anyway; we can't stop it, and Idaho is as good a place as any.
 - Reservations: how is it going to be transported?
3. Yes:
 - More jobs.
 - Cleaner air.
 - Recycling means less waste transportation.

- Idaho will be known as a leader in the global energy front.
 - Bring more money to Idaho.
4. Yes, with one dissent:
- Good for Idaho. It would boost the economy and provide jobs.
 - Idaho is a good location for these projects because of lower production costs and land availability.
 - Dissent: opposed to nuclear energy

At the end of the focus group discussions, an engineer from INL came into the room to answer questions. Participants asked many questions and showed great interest. In Twin Falls, a group continued to ask questions of the engineer outside the focus group room well after the session ended. Main topics and questions included:

- Organization of GNEP: who runs it, who profits from it, and what other countries are involved.
- Timeline for GNEP: when would construction begin and when would facilities be completed.
- Potential jobs and impacts on the economy.
- Impacts on health and safety, including water issues, radiation effects, and similarity of the facilities to Chernobyl.
- Waste issues: what is used nuclear fuel, how does GNEP affect existing waste/waste clean-up at INL, and what waste shipments would be required.

3.4 Synthesis of Key Themes and Messages Received from Stakeholders Concerning the Siting of GNEP at INL

Analysis of the key themes and messages resulting from the range of stakeholder discussions yields some qualitative insights about how GNEP might be received at an eastern Idaho location on the INL site. Those results are summarized below.

3.4.1 Overview

At the highest level, reactions of Idahoans to the concept of GNEP at INL focused on four elements:

- Policy issues such as questions related to the U.S. government's commitment to fund GNEP at the necessary level and for the necessary length of time to have it succeed, INL's nuclear research mission, nuclear energy as part of the national and global energy baseline, a decision to restart spent nuclear fuel reprocessing in this country, regional economic benefits, and—importantly—disposition of spent fuel and nuclear waste in Idaho today and in the future.
- Technical issues such as questions related to sources of nuclear fuel and water for GNEP, characteristics of wastes produced, size and configuration of facilities, need

for comparative risk assessments, nonproliferation and safeguards checks and balances based on the ability to monitor materials throughout the recycling process (i.e., availability of material to be diverted into making a dirty bomb or an actual nuclear weapon), transportation risks, and scale-up issues and types of reactors.

- Environmental issues such as questions related to protection of water resources, especially the sole source Snake River Plain Aquifer, and protection from other impacts on water and air resources, both at the site and where uranium is mined to feed increased nuclear energy production, and impacts to natural resources such as wildlife and plant communities at the site.
- Public awareness issues such as people's knowledge levels about nuclear technology, INL, and GNEP; challenges in helping people statewide understand GNEP and receive answers to their questions about how it would work in Idaho; necessity to engage institutions of higher education, local governments, business communities, and many other groups and people with transparent, open-to-dialogue interactions about GNEP and how it could affect Idaho.

3.4.2 Geographic Distinctions

Stakeholders provided diverse viewpoints, but also stressed many of the same points in outreach across the state. There were some geographic differences among the similarities, summarized below.

In discussions with stakeholders in the Idaho Falls area, including Pocatello and northwest Wyoming, they tended to:

- Reflect greater familiarity with INL's history, mission, and operating track record, and generally a higher level of comfort with continuing that mission by hosting GNEP facilities. Many indicated that increasing Idahoans' familiarity with INL activities and safeguards could increase public confidence.
- Identify issues that were likely to be of concern to others, including the two or three interest groups that have traditionally been opposed to INL practices and new mission activities, and Idahoans who are not so familiar with the lab. Interviews with Snake River Alliance and Keep Yellowstone Nuclear Free and one other individual did result in a list of concerns that placed these interviewees in opposition to GNEP facilities in Idaho, including conformance with the Idaho Settlement Agreement and treatment/storage/disposal of resulting waste products.
- Fear that GNEP may not receive full DOE and Congressional support and resources to become a reality, based on other facilities that were potentially slated for INL but did not materialize.
- Recognize the critical nature of addressing the waste that would result from and remain from GNEP operations, in terms of its characteristics, volumes, toxicity, and especially the plans for its storage and disposition on a firm timeline.
- Hope that the Idaho Settlement Agreement would not be a barrier to bringing GNEP to INL, and believe that an accommodation could be negotiated that would recognize the congruence of GNEP's research focus with INL's lead research laboratory status.

- Support the jobs, community resources, professional and family diversity, and status that would accrue to Idaho Falls and the state with the location of technologically advanced GNEP facilities.
- Support the concept of providing new, cleaner energy sources, reusing nuclear fuel to its fullest potential, and breaking dependence on foreign oil.
- Believe that some people will confuse Chernobyl and Three Mile Island with GNEP, assuming that the risks are too great. Some suggested a coalition of knowledgeable spokespersons who could help the public understand the goals, operations, and safeguards of the GNEP facilities.
- Recognize concerns about environmental protection that exist broadly in the state, focused especially on protection of water resources and relating to past site practices that raised questions about contamination of the Snake River Plain Aquifer. People will also question impacts of increased uranium mining, potential for airborne contaminants, and other environmental questions.

In the Twin Falls area, which included interviews in Jerome and Hailey, discussions with stakeholders tended to:

- Express somewhat less familiarity with INL and its operations, based on increased distance from the site, though many interviewees expressed confidence in INL capabilities. Express some concern about past DOE mistakes such as contamination of the sole source aquifer, and their efforts at community outreach and telling the story about INL.
- Bring up a recent coal-fired power plant project in the Magic Valley that was opposed broadly by the public, based on concerns about water quality protection, air quality, and the transmission of the resulting power out of Idaho. Believe that nuclear power may be a good complement to the national baseline energy picture, and believe that it is consistent with the INL mission.
- Value the agricultural resources in the area highly, and need good information about how GNEP facilities could potentially affect those resources.
- Support the economic benefits that GNEP would bring to the region, and the diversification of energy sources, as well as the potential to fully use nuclear fuel and reduce the waste produced.
- Question the import of spent nuclear fuel to Idaho, and waste products resulting from GNEP operations, in terms of how long they would remain, how a path certain to disposal out of state could be ensured, and how the effort would comply with the Idaho Settlement Agreement.
- Suggested a major emphasis on providing transparent, understandable public information in many formats that will help people understand risk, economic benefits, environmental and radioactive safeguards, and other elements of GNEP.

Finally, in the Boise area, stakeholder discussions tended to:

- Believe that there will be significant support for GNEP and the continuation of INL's nuclear research mission throughout eastern and southern Idaho, especially from

business, high-technology organizations, educational institutions, and local governments.

- Expect that a few anti-nuclear groups, specifically the Snake River Alliance, will oppose GNEP facilities. Other sectors of the public may be supportive, but will need substantial information and clear answers to their questions to be confident about GNEP. Snake River Alliance, specifically, sees GNEP not as recycling spent fuel but as traditional reprocessing of spent fuel, and raises concerns about costs, technology, waste, pollution, nuclear weapons proliferation, and making such a major national policy shift to restart reprocessing.
- Recognizing that Yucca Mountain is not yet open, Idahoans are concerned about bringing in spent fuel to Idaho, producing more waste, and not having a clear timeline and plan for getting it out of Idaho. This may be an area of negotiation in a potentially revised Settlement Agreement.
- See that compliance with the Idaho Settlement Agreement will be an issue, but is likely to be negotiable (or not, based on a few interviewees who see it as a clear barrier).
- Consider nuclear energy part of the full complement of energy sources, along with alternative energy sources; believe that alternative energy sources such as wind and solar can supply some of the need, but not nearly all of it.
- Believe that it is challenging to disseminate information and have dialogue across Idaho, but believe that people need to understand and have an opportunity to support GNEP possibilities.
- Support economic development benefits from GNEP facilities, and recognize the opportunities for broadening economic benefits, public-private partnerships, and high-technology developments from INL and GNEP research and development.

3.5 Outreach Program Summary and Conclusions

It was concluded that people of Idaho care deeply about their state and regions within it, and see GNEP as possibly affecting many key elements – the economy and economic opportunity, the environment and precious natural resources, the intellectual brain trust represented by INL and complementary high-technology activities within the academic and business communities, and the health and wellbeing of their diverse communities. They want clear information, they want to understand the benefits and drawbacks, and they want to be confident that GNEP facilities could be developed, operated, and ultimately decommissioned, safely.

Outreach activities included interviews and meetings with a broad cross section of Idahoans with varying economic, cultural and ethnic backgrounds. The outreach activities placed emphasis on including people across the GNEP opinion spectrum from very negative to very positive. A concerted effort was made to capture all areas of concern, questions and comments (both positive and negative).

From our interviews, workshops, and focus groups, it was concluded that the majority of Idahoans support GNEP. Support was strongest in and around the INL and its communities. In the Twin Falls and Boise areas support was still strong yet not as strong. A very small minority

strongly opposed GNEP. This group typically has historically not supported nuclear related programs of any kind. There is a larger minority who were extremely supportive of GNEP. This group typically has historically supported nuclear related programs of all kinds. In between these two groups there was generally support for GNEP, with a small portion slightly negative to neutral, and almost all in the middle (negative to positive) wanting more information. Many middle of the spectrum supporters of GNEP have areas of concern and questions about the program that need successful resolution to maintain continued support. Most in this middle group are expecting the future resolutions and answers to be satisfactory. This underpins current support.

It was concluded that the GNEP materials used in the outreach activities were satisfactory for this stage of the program. This is evidenced by and documented in the interviews in Appendix C. As was expected at this stage, there are questions and areas to be addressed.

Table 3-3 below summarizes thematic areas and questions heard in the outreach activities:

Table 3-3 Summary of Thematic Areas and Questions

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| INL knowledge and confidence are particularly high in the Idaho Falls area. Increasing the visibility throughout the remainder of the state about the INL mission and track record, and how GNEP facilities fit with that mission, is recommended. | Scaling up research facilities to production facilities is seen as a significant challenge. Information and dialogue on how that would be done, how it would be monitored and communicated, would be helpful to public confidence in decision making. |
| People clearly believe that the nation and world are overly dependent on fossil fuels. GNEP can be part of the solution to that dependency. Nuclear energy is seen as a technology that might add to the national and international energy portfolios. The public needs information about safety, waste management, non-proliferation safeguards, and other areas to bolster GNEP support. | Historic INL economic benefits are understood and appreciated in Idaho. Communities further away from Idaho Falls would appreciate consideration and definition of increasing the distribution of those benefits. Analysis, communication, and delivery of any resulting benefits more broadly would strengthen support for GNEP. |
| More information on the global nature of GNEP, from both policy and technical perspectives will help. People want to know who is involved and what the U.S. role would be in relation to other specific countries – what does a global partnership mean? Utility participation is also a question. | Information and dialogue are needed about concerns raised by the organizations that oppose the GNEP concept at this stage. Issues raised are: pursuing different alternative energy sources; avoiding commercial-scale nuclear operations at INL; and changing national reprocessing policies. |
| Yucca Mountain remains an area of uncertainty for Idahoans in terms of ultimate disposition of GNEP waste materials. Strategies for completing that effort and progress on that front should be communicated promptly and completely to help people gain confidence in the life-cycle issues of waste disposal outside of Idaho. | How GNEP facilities could be developed and operated in Idaho in relation to the Idaho Settlement Agreement will be important in understanding differing perspectives and reaching resolution of what commitments can be made in terms of GNEP operations and waste disposal. |

Table 3-3 Summary of Thematic Areas and Questions (continued)

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| As GNEP facility details become more defined, Idahoans will welcome information and discussion about facility characteristics and operating procedures. Idahoans are particularly interested in details about processes, facility characteristics, safety, non-proliferation provisions, and other technical issues. | Regulatory requirements must be met fully, in consideration of potential environmental impacts from GNEP, with focus on water and airborne contamination potentials, water supply, seismicity, and other environmental priorities important to Idahoans. |
| Addressing greenhouse gas emissions needs to be fleshed out in more detail to allow people to understand and support GNEP's role in reducing emissions. | Addressing questions on funding and commitment to GNEP is an area that will benefit the GNEP program support in Idaho. |

Two key areas bear additional emphasis:

- To enhance GNEP progress in Idaho, a much better public understanding is needed about waste management implications – how the waste from the current once-through fuel approach compares to that from the GNEP recycled approach. Idahoans want to understand waste characteristics and risks – waste volumes, toxicity, radioactivity, planned waste forms, storage plans, shipment plans, and ultimate disposal plans. In addition, policy commitments about how and when imported spent fuel and resulting wastes would leave Idaho are very important.
- A related area is establishing the relationship of GNEP in Idaho to the Idaho Settlement Agreement. Whether people support GNEP or not, they believe that questions must be answered about whether the Settlement Agreement affects DOE's ability to import spent fuel for GNEP operations, what the requirements would be for removing waste products, and what facilities can be expected to exist out of Idaho for ultimate disposal of waste products.

Recognizing the significant level of Idaho support that exists for continuing to explore GNEP possibilities, the RDA team recommends that efforts to increase public understanding about GNEP's possibilities and issues continue unabated as the PEIS is completed. These efforts should address the questions and concerns that have been expressed and will continue to develop. Idahoans understand the possibilities, they are committed to INL's mission and its future, and they are equally committed to doing the right thing for any new development in their state.

4.0 Conclusions and Recommendations

